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## METASTATIC RENAL CANCER ARISING FROM ADENOID CYSTIC CARCINOMA OF THE PAROTID GLAND: A CASE REPORT

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A 40-year-old woman underwent excision of the right parotid gland tumor in 1988. The pathological examination showed adenoid cystic carcinoma. In 1993 she underwent excision of a recurrent tumor on the right face and was referred to our department because of an incidental finding of left renal tumors. She underwent nephrectomy and was diagnosed with left renal metastasis on pathological examination. In 1997 computerized tomography demonstrated multiple metastases in the right kidney, liver, lungs and brain. She died of cancer in 1998. Secondary carcinoma of the kidney is usually identified at autopsy and represents a late and poor manifestation of primary disease when diagnosed during life. The present case is unique in its primary site, pathology and clinical course.

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**Key words:** Metastatic renal tumor, Adenoid cystic carcinoma of parotid gland

### INTRODUCTION

The kidney is a frequent site of metastasis from a variety of organs. The common primary organs are the lungs, breast, stomach, and opposite kidney<sup>1,2)</sup>. We report an unusual case of renal metastasis from adenoid cystic carcinoma of the parotid gland.

### CASE REPORT

In 1988 a 40 year-old woman underwent excision of adenoid cystic carcinoma of the right parotid gland and received adjuvant chemotherapy. In 1993 she presented with right tinnitus and paresthesia on the right face and was diagnosed with local recurrence. She underwent excision of the recurrent tumor. The evaluation for distant metastasis included neck and abdominal ultrasonography (US), chest radiography, head and abdominal computerized tomography (CT) and bone scintigraphy. On US, multiple hypoechoic masses were found in the left kidney. CT showed multiple hypo-density areas in the left kidney (Fig. 1). Left renal angiography revealed hypovascular lesions. The diagnosis was left renal metastasis but the possibility of renal cell carcinoma (RCC) could not be completely excluded<sup>3)</sup>. Needle biopsy was not performed because there was a concern about tumor seeding of the needle tract<sup>4)</sup>. She underwent nephrectomy. The specimen included multiple tumors with a diameter of 2 to 4 cm. Pathological examination revealed adenoid cystic carcinoma (Fig. 2).

In 1995 CT showed two low density areas in the upper and lower poles of right kidney, which were

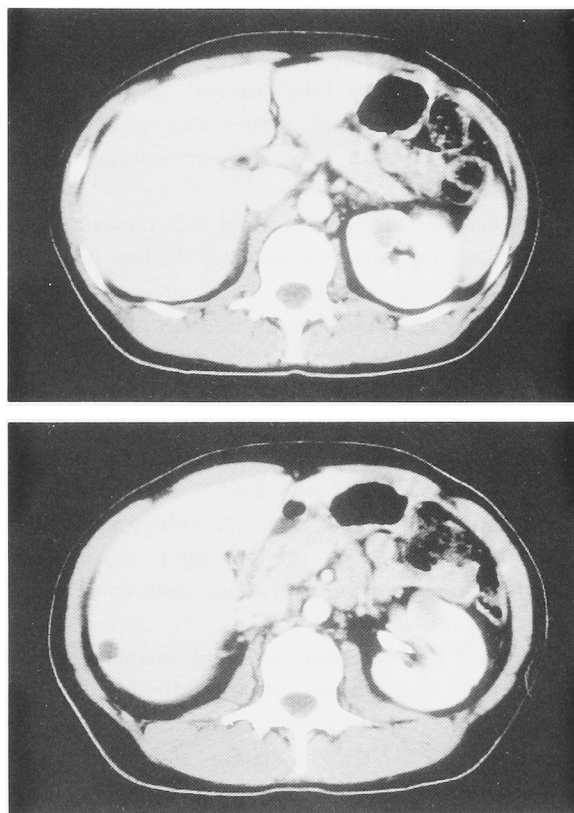


Fig. 1. Computerized tomography in 1993 showing multiple tumors in the left kidney.

considered right renal metastasis. In 1997 the size of the tumors increased remarkably and metastatic lesions were detected in the brain, lungs and liver on CT. She died of cancer in 1998.

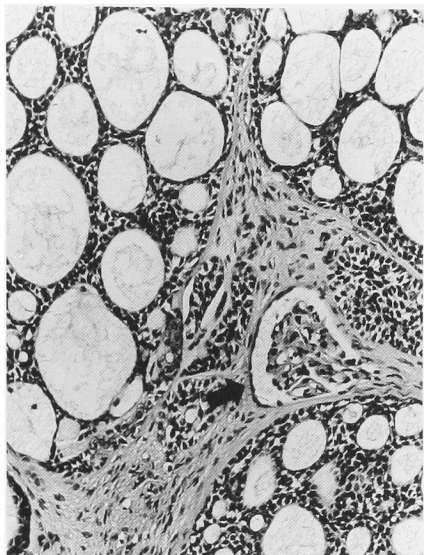


Fig. 2. Photomicrograph of the specimen showing adenoid cystic carcinoma and glomerulus (arrow). H & E, reduced from  $\times 200$ .

### DISCUSSION

Adenoid cystic carcinoma of the salivary gland accounts for fewer than 1% of all head and neck malignancies and fewer than 10% of all salivary neoplasms<sup>5)</sup>. Its clinical behavior is slow-growing and characterized by long survival despite a high incidence of late local recurrences and distant metastases. The lung is the most common site of metastasis<sup>5)</sup>.

It has been generally recognized that metastases to the kidney are rarely diagnosed during life and usually found at autopsy. In a review of 4,419 autopsies, Wagle et al. found 81 cases of secondary carcinoma of the kidney<sup>2)</sup>. The common primary sites were found in the lungs (16 cases), breast (10 cases), stomach (9 cases) and opposite kidney (7 cases). Only in 1 case, primary was the parotid gland. In the clinical situation, 2 cases of parotid gland tumors metastasizing to the kidney have been reported<sup>6,7)</sup>. The histology of these cases were malignant pleomorphic adenoma and epidermoid carcinoma respectively.

Recently, the detection of renal metastases has increased in the clinical situation because of the improved survival of cancer patients and the routine use of US and CT for the staging and follow-up of malignancies<sup>8)</sup>. At the present, CT is the most sensitive method to detect renal metastasis<sup>9)</sup>. In a

retrospective study of CT findings in patients with renal metastasis and renal cell carcinoma (RCC), Honda et al. suggested that renal metastasis is characterized as small (less than 3 cm in diameter), multiple, bilateral, wedge-shaped, less exophytic, and located within the renal capsule<sup>9)</sup>. In the present case, CT findings of left renal tumors satisfied these characteristics except bilaterality. Additionally, in patients with a history of malignancy, renal metastases have been reported to outnumber RCC by approximately 4:1<sup>10)</sup>. Secondary renal carcinoma should be included in the differential diagnosis of renal tumor in patients with a history of extrarenal malignancy.

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## 和文抄録

## 耳下腺腺様嚢胞癌腎転移の1例

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症例は40歳，女性．耳下腺腺様嚢胞癌のため手術施行したが，術後5年で頭部局所再発のため再発腫瘍の摘除術施行．遠隔転移の精査中，超音波検査およびCT上，左腎腫瘍を認めたことから当科受診した．左腎摘除術施行し，病理組織検査の結果，腺様嚢胞癌で

あり耳下腺癌の左腎転移であった．4年後に右腎転移を含む多発性転移のため死亡した．耳下腺癌腎転移の報告は稀で，本症例は文献上3例目であった．

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